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Principal Author:

Michael Byrd

Other Author(s):

Morris Hayes

Principal Author's Organization:

TRADOC Analysis Center-Fort Lee

Complete mailing address:

Director, TRAC-LEE
401 1st Street
Fort Lee, VA 23801

☒ *Michael F. Byrd*

Principal Author's Signature: ☒ Date:

Phone: (804) 765-1837

FAX: (804) 765-1456

Email: michael.f.byrd@us.army.mil

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Releasing Official's title: **FUNCTIONAL OPERATIONS CHIEF**

☒ *Jeannette I. Blumenthal*

Printed name: **JEANNETTE I. BLUMENTHAL**

Releasing Official's Signature: ☒

Organization: **TRADOC ANALYSIS CENTER-FORT LEE**

Date: **2 Jun 08**

Complete mailing address:

**401 FIRST ST.
FORT LEE, VA 23801-1511**

Phone: **804-765-1822**

FAX: **804-765-1456**

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Logistics Battle Command Research Program



76th MORS Symposium

10 June 2008

Briefing Purpose

To outline the Training and Doctrine Command Analysis Center's (TRAC) Logistics Battle Command * (LBC) research program.

***Formerly known as Sustainment Battle Command (SBC).**

Agenda

- **Purpose and Objective of LBC Research Program.**
- **Definition of LBC.**
- **LBC Research Phases and TRAC's FoF Models.**
- **LBC Research Methodology.**
- **LBC Research Status.**
- **LBC Research Emerging Results.**
- **Sample Decision Logic.**
- **Summary.**

Purpose and Objective of LBC Research Program

- **The purpose of TRAC's LBC research program is to:**
 - ***Set the conditions*** for future analysis of LBC through the use of TRAC force-on-force (FoF) and performance models.
 - **Implement in our FoF models an adequate representation of LBC/Log C2, including any collateral requirements for maneuver C2.**
- **The objective is to identify the critical decisions, logic, data/information requirements, and enabler functionality to be implemented in our FoF models such that LBC can have an impact on the warfight and vice versa.**

Definition of LBC

- **LBC is the application of leadership and decision making abilities and skills to the planning and execution of sustainment operations in support of combat.**
- **Roughly equivalent to Log C2, it can also be thought of as “the exercise of authority and direction by a commander or staff over forces providing support and services in the accomplishment of the logistics mission, integrated and synchronized with the operations of supported combat forces.”**
- **TRAC published a White Paper on the subject in Nov 06. The purpose was to provoke a dialogue that focused on command (what is done with the data/information provided by the enablers), instead of continuing to focus on control (the enablers).**

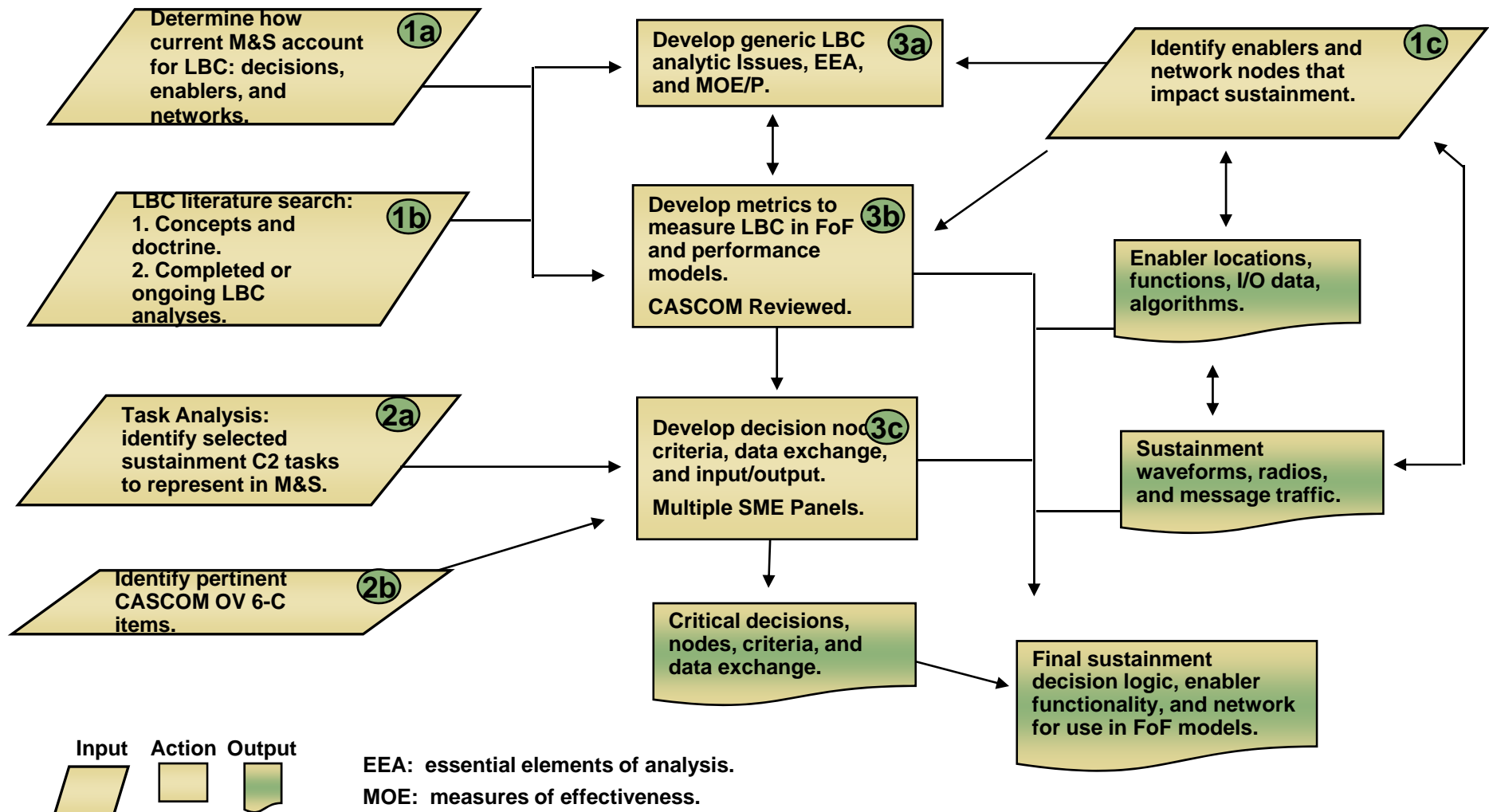
This effort focuses on the decisions made by the sustainer and the information required to make those decisions.

LBC Research Phases and TRAC's FoF Models

- **Research conducted in two phases. Each phase focused on basic research and implementation in the FoF models.**
 - **Phase I: Brigade and Below in Combined Arms Analysis Tool for the 21st Century (COMBAT XXI).**
 - **Phase II: Echelons Above Brigade (EAB) in Advanced Warfighting Simulation (AWARS).**
- **COMBAT XXI is a development effort that will replace the legacy system, CASTFOREM, as an analytical, stochastic, simulation tool for weapon systems, doctrine, and tactics evaluation in brigade and below combined arms conflicts. COMBAT XXI is a TRAC-WSMR modeling effort.**
- **AWARS is TRAC's next generation FoF simulation focusing on modular force organizational structures and concepts. AWARS replaced VIC as TRAC's Corps/Division level deterministic simulation. AWARS is a TRAC-FLVN modeling effort.**

LBC Research Methodology

This is the methodology we used for Phase 1 and 2.



EEA: essential elements of analysis.
 MOE: measures of effectiveness.
 MOP: measures of performance.
 CASCOM: Combined Arms Support Command.

LBC Research Status

- **Phase I, Brigade and Below in COMBAT XXI.**
 - **Basic research is complete.**
 - **Implementation in COMBAT XXI is iterative and ongoing.**
- **Phase II, Echelons Above Brigade (EAB) in AWARS.**
 - **Basic research and implementation being conducted concurrently with TRAC-FLVN AWARS program.**
 - **Implementation in AWARS is ongoing.**

LBC Research Emerging Results

(Slide 1 of 2)

- **Developed a generic set of LBC analytic issues, EEA, and MOE/P.**
- **For FBCT (Brigade and Below):**
 - **Identified the key sustainment decision makers and the key sustainment related decisions.**
 - **Developed decision logic flow diagrams for resupply of Class III(B), Class V via surface convoy operations or by air, and for Maintenance.**
- **Conducted a thorough review of the capabilities (or proposed capabilities) of several LBC enablers to include:**
 - **Battle Command Sustainment Support System (BCS3).**
 - **Force XXI Battle Command Brigade and Below (FBCB2).**
 - **Platform Soldier-Mission Readiness System (PS-MRS).**
 - **Logistics Decision Support System (LDSS).**

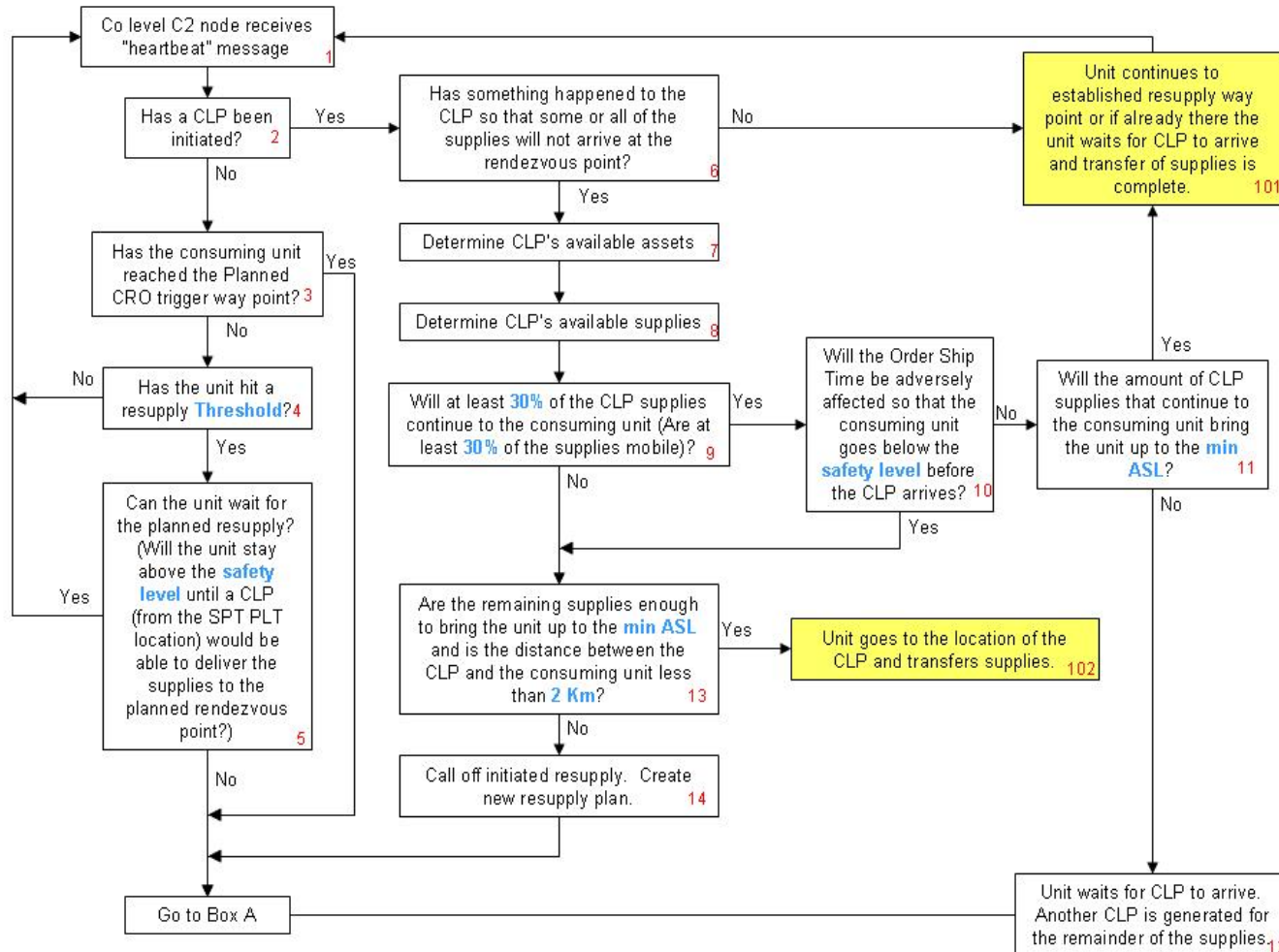
LBC Research Emerging Results

(Slide 2 of 2)

- **For EAB:**
 - Identified the key sustainment decision makers and the key sustainment related decisions.
 - Developed decision logic flow diagrams by echelon for resupply of Class III(B), and Class V via surface convoy operations or by air.
 - Theater to sustainment brigade.
 - Sustainment brigade to brigade support battalion (BSB).
 - BSB to forward support company (FSC)/ support platoon.
- **LBC Model.** TRAC has an ongoing effort to create an LBC model that can be used to analyze sustainment enablers. This work is being completed by TRAC-MTRY.

Sample Decision Logic

This is a sample of the decision logic flow diagrams that have been created for Brigade and Below and EAB.



Notes: 1) Items in blue are inputs defined by the commander/SME and should be appropriate for the specific scenario being modeled. 2) Yellow boxes indicate Action.

Summary

- **When complete, the LBC research program will:**
 - ***Set the conditions* for future analysis of LBC through the use of TRAC force-on-force (FoF) and performance models.**
 - **Implement in our FoF models an adequate representation of LBC/Log C2, including any collateral requirements for maneuver C2.**